LMX AND CWX: ARE SAME GENDER TEAMS MORE EFFECTIVE?

A Thesis

Presented to the

Faculty of the Graduate School of

Angelo State University

In Partial Fulfillment of the

Requirements for the Degree

MASTER OF SCIENCE

by

TINISH THOMAS

August 2013

Major: Industrial/Organizational Psychology

LMX AND CWX: ARE SAME GENDER TEAMS MORE EFFECTIVE?

by

TINISH THOMAS

APPROVED:

_____
Dr. Cheryl Stenmark

_____
Dr. Kraig Schell

_____
Dr. Crystal Kreitler

_____
Dr. Nicholas Negovetich

_____
Date Successfully Defended and
Approved by Advisory Committee

APPROVED:

_____
Dr. June H. Smith Date
Interim Dean of the College of Graduate Studies

ACKNOWLEDGEMENTS

There are a number of people who have made this research project possible, whom I would like to thank. First of all, I would like to thank my wife Nisha for her personal support, encouragement and the sacrifices she has made in the last two years. Thank you for believing in me and my passion. You made this possible. I am so blessed to have you.

I would like to express my sincere gratitude to my advisor Dr. Cheryl Stenmark for her endless support and patience. You were there to help me whenever I needed your expertise. Without your guidance and continuous help, this thesis would not have been possible. Thank you.

I would also like to thank the rest of my committee: Dr. Kraig Schell, Dr. Crystal Kreitler, and Dr. Nicholas Negovetich, for their encouragement and insightful comments. I am indebted to Dr. Kraig Schell for his mentoring throughout the program. As an advisor, friend and mentor, your unwavering support and guidance has allowed me to develop on an academic, personal, and spiritual level.

Additionally, I would like to thank my parents, Thomas and Mary Varakukalayil. Thank you for always believing in me and encouraging me in all of my pursuits. I would also like to thank my father and mother in-law, Philip and Marykutty Viruthakulangara for coming from India to support my family during this period. Also, Mathew and Deepthi, thank you for your support, which meant a lot to me.

In addition, I would like to thank the friends and family members who provided words of encouragement and moments of escape during this project.

Last, but foremost I thank almighty God for the wisdom and provisions He has given me throughout my life, particularly in the last two years.

ABSTRACT

This study examined the impact of gender dyads on the classical Leader-Member Exchange relationship and the subsequent association with supervisor performance ratings, subordinate's Organizational Citizenship Behavior and turnover intentions. We also examined the effect of subordinates' gender dyads on the relatively less scrutinized Coworker Exchange relationships. The study used an online survey. Both student and organizational samples were collected from the US. Additionally, organizational samples from India, Australia, Nepal, and Bahrain were obtained. The results showed general supporting evidence for LMX and its outcomes. Only partial evidence was found in support of the gender based LMX model. Significance of the findings is discussed along with the limitations of the current study and future research directions.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS III

ABSTRACT IV

TABLE OF CONTENTS V

LIST OF TABLES VII

LIST OF FIGURES VIII

INTRODUCTION 1

LEADER-MEMBER EXCHANGE THEORY 2

OUTCOMES ASSOCIATED WITH LMX 5

Performance Ratings. 5

Organizational Citizenship Behaviors. 6

Turnover Intentions 8

Coworker Exchange. 9

METHOD 11

PARTICIPANTS 11

MEASURES 12

Performance Rating. 12

OCBs. 12

CWX. 13

TOI. 13

PROCEDURE 14

RESULTS 16

LMX RLATIONSHIPS WITH OUTCOMES 17

CWX RELATIONSHIPS WITH OUTCOMES 25

CWX AS A MEDIATOR OF THE RELATIONSHIP BETWEEN LMX AND OCB 29

DISCUSSION 30

REFERENCES 38

VITA 42

APPENDIX 44

LIST OF TABLES

TABLE 1. Descriptive Statistics of the Dependent Variables 16

TABLE 2. Descriptive Statistics Corresponding to the Gender Dyads and Outcomes 18

TABLE 3. ANOVA Outcomes of Same Vs. Opposite Gender Dyads 19

TABLE 4. LMX Gender Dyads and Outcomes 21

TABLE 5. ANOVA Outcomes of LMX in M-M, M-F, F-F, and F-M dyads 23

TABLE 6. CWX and Coworker Groups 26

TABLE 7. ANOVA Comparing CWX in Same Vs. Opposite Gender Dyads 27

TABLE 8. Correlation between Variables 28

TABLE 9. CWX Mediating the Relationship between LMX and OCB 29

LIST OF FIGURES

Figure 1. Research Frame work 48

Figure 2. CWX Mediating the Relationship between LMX and OCB 49

Figure 3. Effect of gender based LMX dyads on CWX 50

Introduction

Teams play a vital role in most organizations. Almost all organizations use teams to perform at least some tasks, and in many organizations small teams are the basis on which the entire organization is built (Jex & Brit, 2008). Teams are composed of subordinates and a team leader. However, teams may be further broken down into the individual relationships between each individual subordinate and the group leader. This subset is known as a "dyad". Research suggests that individual characteristics, such as gender, influence this relationship development (Varma et al., 1996; Varma & Stroh, 2001). The present study focused on these dyad groups, to examine whether gender has an effect on the formation and maintenance of these relationships.

These dyadic relationships can vary in terms of the quality of the relationships, and the quality is often discussed in terms of the interpersonal exchange that takes place between the two parties. Thus, these relationships are often referred to as being either high quality exchanges or low quality exchanges. Furthermore, these exchange relationships in a team can be viewed in two ways: the relationship between individual subordinates and the leader (Leader-Member Exchange [LMX]) and the relationship among the subordinates themselves (coworker exchange [CWX]). The relationships between subordinates and leaders have been examined quite extensively under the LMX theory. The relationship between supervisors and subordinates (dyads) is likely to influence a number of important outcomes, such as performance ratings (Varama & Stroh, 2001), organization citizenship behavior (OCB) (Basu & Green, 1995), and turnover intentions (TOI) (Vecchio & Godbel, 1984) (Figure 1.1)

Publication Manual of the American Psychological Association (6th Edition)

Less research has examined the role of coworker exchange, but it has been demonstrated that teams that lack frequent communication or those that do not share information with eachother tend to perform worse than teams with free-flowing communication (Heckman, 1987). Thus, it is essential for organizations to ensure quality relationships among their leaders and team members.

Leader-Member Exchange Theory

LMX theory (Graen, 1976; Graen & Cashman, 1975; Graen & Scandura, 1987) proposes that supervisors share their personal and positional resources selectively with their subordinates. As a result, supervisors develop LMX relationships of varying quality with their subordinates, spanning from high quality (in-group) to low quality (out-group). Those in the in-group receive more of the supervisors' time, support and trust, compared to those in the out-group. Subordinates in the in-group often exhibit improved in-role performance (Dansereau, Graen, & Haga, 1975; Dienesch & Liden, 1986: Graen & Scandura, 1987), and extra-role activities such as OCBs (Deluga, 1994; Settoon, Bennett, & Liden, 1996; Rinald, 1998; Wayne & Green, 1993). In out-group or low-quality relationships, however, members receive less access to the supervisor and fewer resources, leading to job dissatisfaction, lower organizational commitment and higher employee turnover (Gerstner & Day, 1997).

The consequences of differing qualities of LMX relationships have been the focus of a great deal of research. These research efforts have looked into several outcomes such as OCBs, performance ratings, job satisfaction, creativity, turnover, and coworker exchange relationships. These studies have found that LMX quality significantly influences these

outcomes (Jex & Britt, 2008), such that high-quality relationships are associated with more positive outcomes. When a company invests in a new employee, high OCB and high performance are typically expected. Additionally, the increasing cost of lost person-hours in the work place makes it necessary that absenteeism and turnover remain minimal. Thus, it is apparent that high-quality LMX relationships are important to organizational success. Research investigating the dynamics of these relationships can aid this success by informing organizations how they can take measures to facilitate the development of high-quality exchange relationships. .

To that end, researchers have also studied the determinants of LMX relationships (Dienesch & Liden, 1986; Varma, DeNisi, & Peters, 1996). Personality traits, subordinate's performance (Nahrgang, Morgeson, & Ilies, 2009) and supervisor's upward dyadic relationship (Cashman, Dansereau, Graen, & Haga, 1976) are found to be the antecedents of this exchange relationship. Dienesch and Liden (1986) suggest that individual characteristics such as sex, race, and educational background could also be such determining qualities. Liking appears to be an important factor in determining the quality of the LMX relationship as well (Varma et al., 1996; Varma & Stroh, 2001). Further, several studies (Deluga, 1988; Engle & Lord, 1997; Phillips & Bedeian, 1994) have shown that perceived similarity between leaders and subordinates is an important factor affecting the quality of their relationship.

Several studies report that demographic similarity, within which gender would be included, has a significant impact on the quality of the relationship that develops between

supervisors and subordinates (Turban & Johns, 1998; Wayne, Shore, & Liden, 1997). Indeed, Green, Anderson, and Shivers (1996) examined the effect of gender on LMX relationship and found that the quality of relationship is likely to be lower when subordinates and supervisors are of different genders. Additionally, Tsui and O'Reilly (1989) found that in organizational settings, subordinates in mixed-gender dyads were less well-liked by the leaders than subordinates in same-gender dyads. Furthermore, Varma and colleagues (1996; 2001) examined the effect of gender on LMX dyads and found that subordinates of the same-gender are better liked and exhibit a higher quality relationship. They also argue that same-gender dyads have an advantage over the opposite-gender dyads in performance evaluation. The findings are consistent with the argument that similarity between the leader and subordinates leads to liking and, in turn, contributes to a higher quality LMX relationship. Alternatively, Bauer and Green (1996) found that gender has no effect on LMX quality. They demonstrated that demographic characteristics, such as gender and personality similarity between supervisor and subordinates, have no predictive power in LMX relationships. Thus, while equivocal at times, the literature strongly suggests that the quality of the relationship in LMX dyads is higher when subordinates are of the same-gender. The following hypothesis is proposed based on the above literature.

Hypothesis 1: Employees in same-gender dyads will demonstrate higher-quality Leader-Member Exchange relationships.

Outcomes Associated with LMX

A number of studies have suggested an association between LMX relationship quality and organizational outcomes, such as employee commitment, turnover, innovation, and performance ratings (Basu, 1991; Dansereau et al., 1975, Duchon, Green & Taber, 1986, Graen, Liden & Hoel, 1982, Vecchio & Godbel, 1984, Varama & Stroh, 2001). The present study examined a number of these important outcomes.

Performance ratings. Performance ratings have been scrutinized for several years in the Industrial-Organizational psychology literature. Most organizations conduct performance evaluations at least once a year. Performance ratings involve the evaluation of the degree to which the employee met the job-related goals and the extent to which he/she exhibited positive behavior towards individual and team goal attainment. The purpose of performance ratings goes beyond just measuring the extent to which employees accomplished prescribed goals, and extends to administrative decision-making such as pay raises and promotions, and employee development. Research on performance ratings has shown that subjective ratings may be influenced by rater characteristics, such as gender, race, liking in addition to rater errors, such as leniency, similar to me, and halo effect (Landy, 2010; Pulakos & Wexley, 1983).

Researchers examining the effect of gender on performance evaluation found varying results. Cohen, et al. (1978) report that, in general, men receive higher performance evaluation than women, whereas, Pulakos and Wexley (1983) concluded that their findings favored females. As Palakos and Wexley (1983) report, the lack of research examining

gender composition of supervisor and subordinates may be a reason for the ambiguity in the performance ratings research. Varama and Stroh (2001) note that prior research studied the effect of gender primarily conducted in laboratory settings, which may not be as effective as field settings for making inferences on the effect of gender on performance ratings. In their field study on the impact of same-gender LMX dyads on performance evaluations, Varama and Stroh (2001) found that both male and female supervisors exhibit a positive bias toward subordinates of the same gender, and rate members of the same-gender as higher performers, compared to subordinates of the opposite gender. Thus, the following hypothesis is proposed to extend the literature on the effect of gender composition on performance rating.

Hypothesis 2: Subordinates in same-gender LMX dyads will receive comparatively higher performance ratings than those in opposite-gender LMX dyads.

Organizational citizenship behaviors. OCBs are spontaneous acts that go beyond prescribed job requirements, where the subordinates perform extra-role behaviors which are nonobligatory and informal. OCBs are considered vital for productivity because organizations cannot anticipate through formally stated in-role job descriptions the entire array of subordinate behavior needed for achieving goals (George & Brief, 1992). Organ (1988), one of the pioneers in the field, proposed a five factor OCB model consists of altruism, courtesy, sportsmanship, conscientiousness and civic virtue. Altruism sometimes referred to as prosocial behaviors, represents helping behaviors towards other person with an organizationally relevant task or problem. This may include assisting a coworker to complete his task. Courtesy is described as considerate behaviors aimed at preventing work-related

problems. These behaviors ensure smooth functioning of the team. One example may be touching base with coworkers. Sportsmanship describes the willingness of employees to tolerate less than ideal circumstances without complaining. Conscientiousness involves being a good citizen in the workplace beyond the minimum role requirements of the organization, in the areas of attendance, obeying rules and regulations, breaks, etc. Civic virtue is the behavior directs towards the organization or the work group rather than the individual one works with. One example may be representing organization for an activity that is not part of their formal job requirements.

Shapiro, Jacqueline, Kessler and Purcel (2004) suggest that OCB is an extra-role behavior that is not officially required by the organization; rather its practice depends solely on the consent of employee as a consequence of the organizational environment. According to Borman (2004), OCB improves the productivity of both coworkers and supervisors, facilitates better coordination of team activities, increases organizational performance, and helps the organization attract and retain employees (as cited in Akinbode, 2011, p. 380). It is believed that as more employees engage in OCB, the organization becomes more successful (Yen & Neihoff, 2004). Furthermore, research has shown that OCB and counterproductive work behaviors (CWB) are significantly negatively correlated (Baker, 2005), which means that a person high in OCB is unlikely to engage in behavior that poses a threat to the effective functioning of the organization.

According to McNeely and Meglino (1994), OCB can be broadly categorized into two types: OCBI, behaviors that are directed toward individuals, such as supervisors or

coworkers, and OCBO behaviors directed toward the organization. There are several explanations for why individual engage in OCB, and the antecedents may differ for each type of OCB. The determinants of OCB may include contextual factors, as well as dispositional antecedents. The present study examines one important contextual factor: the relationship quality of the gender LMX dyads.

Researchers have suggested that high-quality LMX relationships lead to better in-role performance (Dansereau et al., 1975; Liden & Graen, 1980; Vecchio & Gobdel, 1984; Wayne & Ferris, 1990), as well as extra-role behaviors or OCBs (Settoon et al., 1996, Rinald, 1998; Wayne & Green, 1993). Kim, O'Neill, and Cho (2010) found that lower-quality LMX relationships lead to jealousy among employees and a decline in OCBs as well. Although research suggests that high quality LMX relates to OCBs (Basu & Green, 1995), the effect of gender LMX dyads on OCBs has not yet been fully explored.

Hypothesis 3: Subordinates in same-gender LMX dyads will exhibit a high Organizational Citizenship Behavior than the subordinates in opposite-gender LMX dyads.

Turnover intentions . The literature suggests that members who have higher quality exchange relationships with their leaders are more committed to the organization (Duchon et al., 1986), and are less likely to quit the organization (Graen et al., 1982; Vecchio & Godbel, 1984). In turn, Gerstner and Day (1997) suggest that in low quality relationships, subordinates experience dissatisfaction in the job, and are more likely to engage in turnover. Michael (2011) found that supportive supervisor communication, which is evidenced in a

high quality LMX relationship, is negatively related to TOI. Although studies were conducted on LMX relationship quality and turnover intentions, the effect of gender LMX dyads on TOI was not fully explored. Consistent with the earlier argument that same-gender dyads have high quality exchange relationship the following hypothesis is proposed.

Hypothesis 4: Subordinates in same-gender dyads are less likely to engage in turnover than the subordinates of opposite-gender dyads.

Coworker exchange. LMX research focuses only on the supervisor and subordinate exchanges. It is important to remember that coworkers will form relationships with each other as well. Graen and Uhl-Bien (1995) pointed out that understanding coworker exchange may be important, as it could provide more insight into the leadership process. Graen & Uhl-Bien (1995) proposed that leader-member exchanges and coworker exchanges may be parallel to each other. High quality coworker exchange can be demonstrated when an employee offers help to coworkers to solve unforeseen problems, willingness to mentor junior employees, or working overtime to support the team (Ali & Kandan, 2010). This may echo as OCB but it is important to note that that a member may not exhibit the OCBs towards all the other members in the group equally: the distribution depends on the exchange relationship between the members. Also, members who display OCBs toward the organization and supervisor may not necessarily display OCBs toward coworkers. In brief, coworker exchange is the healthy dyadic interaction between the members that will help the team to perform better. Love and Forret (2008) found that CWX is related to supervisor reported OCB. They also suggest that CWX is related to four of the five dimensions of OCB,

altruism, courtesy, conscientiousness and civic virtue. Research regarding the determinants and outcomes associated with CWX is scant. It is possible, however, that the same determinants of the LMX exchange relationship might also factor into the quality of CWX relationships. Furthermore, CWX may be associated with similar outcomes as LMX. Thus, similar to the previous hypotheses regarding gender and LMX, the following hypothesis and research question are proposed:

Hypothesis 5: There will be a higher quality exchange relationship between same-gender coworker dyads as compared to opposite gender coworker dyads.

Research Question: How is coworker exchange related to LMX, OCB, TOI, and performance ratings?

Method

Participants

The present study used a student sample from a medium-sized state university and field data from various organizations. Participants completed the surveys online at their convenience. Student participants earned course credit for their participation in this study. The organizational participants were entered into a drawing for a prize.

Among the 114 responses received, 4 responses were missing data. One survey was mostly incomplete and 3 surveys were partially complete. Some of the respondents did not mention their gender or country of origin. There were 58 student and 55 organizational participants and one participant missing this data. Student sample comprises of 50.9% and organizational sample represent 48.2% of the returned surveys. This shows a nearly equal representation of both samples. There were 43 males and 68 female participants in this study. Three did not report their gender. The participants rated 63 male supervisors and 49 female supervisors. Supervisor demographic data was missing in two surveys. The data were organized into same and opposite gender dyads, and there were 79 same gender dyads and 31 opposite gender dyads, yielding a total of 110 gender LMX dyads. Among the same gender dyads there were 37 male genders (Male supervisor – Male subordinates) and 42 female gender. (Female supervisor – Female subordinates). The opposite gender dyads consist of 25 male-female dyads and 6 female-male dyads.

The majority of the participants were working at organizations in the US; they accounted for 81% (93) of the total respondents, followed by India 12% (14). Four (3.5%) of

the surveys were from Australia. There was 1 survey from Nepal and Bahrain. Most participants (71) were of US origin, and 33 were of Indian origin. Australia has 3 and 1 participant each from Nepal, Italy and Panama. Three participants did not report their country of origin.

Measures

LMX. Leader-member exchange was measured by LMX-7 (Scandura & Green, 1984), the widely adopted instrument in LMX research. This seven-item questionnaire, based on a five-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree), assesses a variety of relational issues. A sample item is: “I usually know where I stand with my supervisor”. Participants were asked to rate their relationship quality with their supervisor using this instrument. The reliability estimate of the instrument has been cited as .90 (Wayne, Shore & Liden, 1997). For the present sample, the internal reliability of the instrument was .81.

Performance rating. Respondents were asked to self-report their last performance rating score with the current supervisor on a 5-point scale ranging unsatisfactory to excellent. The following item was used to collect the performance rating, “Please report your latest performance rating by your current supervisor on the following scale.”

OCBs. Subordinates were asked to self-report their organizational citizenship behavior using Williams and Anderson’s (1991) OCB scale. This is a two-dimensional measure of OCB: the OCBI and OCBO. OCBI includes items assessing the behaviors that are aimed at other individuals. OCBO measures the behaviors that benefit the organization as a whole. OCBI consists of seven items, such as "assists supervisor with his or her work when

not asked". An example from the six item OCBO is "Adheres to informal rules devised to maintain order". The responses range from 1 (never true) to 5 (always true). The average internal consistency reliability of OCBI is reported to be .83 and the internal consistency reliability of OCBO is estimated to be .86 (Zhong, Lam & Chen, 1999). In the present sample, the internal reliability of the OCBI scale was .61 and the internal reliability of the OCBO scale was .52. It is suspected that the low reliability score may have been resulted as a technical glitch. One of the items in the OCBO measure was missing for several participants who took the survey in the same day.

CWX. Coworker exchange was measured using the 7-item instrument developed by Seers (1989). Participants rate their team member on a 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). The reliability estimate was .81 (Lam 2003). Items include, “I am flexible about switching jobs with others in my work group”. This question will be reworded to so that the respondents will be able to rate their relationship to a specific member in the work group. For example, “I am flexible about switching jobs with ‘name’.” Each participant will measure his/her relationship with four other members in the team. For the present sample, the internal reliability of CWX was .84.

TOI. Turnover intentions of the current employee were measured with a three-item measure (Ostroff & Kozlowski, 1989, 1992). A representative item in the scale is “I often think about quitting". Participant’s agreement to the item is indicated on a 5 point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The reliability estimate for the scale has been reported as .90 (Major, Kozlowski, Chao & Gardner, 1995). For the present sample, the internal reliability was .80.

The demographic questionnaire assessed each participant's gender, ethnicity, country of origin, first language, education, tenure, and marital status.

Procedure

The surveys were conducted online using a website www.survs.com. Field samples were collected from organizations in four countries. The organizational sample from the US was collected by sending the survey link through Facebook. Contact persons at organizations in India, Australia, Nepal, and Bahrain sent out emails with the survey link to their employees. Students were given course credit for their participation in the study. Once they signed up for the study, an email with a link to the questionnaire was sent to them, so that they could complete the survey at their own pace.

Clicking the survey link opened the informed consent page, which stated the purpose of the study, and the risks and benefits of the study. The organizational survey did not ask for the participants' personal information, in order to maintain the confidentiality of the information provided by the respondents. For the student survey, the names of the participants were collected for assigning course credit. Informed consent ended with the notion that by clicking next, participants agree that they read and understood the consent. Separate instructions were given on how to complete each questionnaire of the survey. A debriefing statement was attached at the end of the survey. In completing the study, participants were asked to rate their relationship with their supervisor, coworkers, citizenship behaviors, and turn over intentions. They were also asked to state their recent performance evaluation score on the sale provided. Once the participants completed the survey, they were

asked to provide their email address in order to be entered in the drawing and click “Submit”. The data were stored on the server of the website.

Results

Table 1 presents the overall means and standard deviations of the variables of interest. All the hypotheses were tested using analysis of variance (ANOVA). Table 2 presents the means and standard deviations of the groups compared using ANOVAs. Table 3 presents the ANOVA table for all ANOVA analyses. Correlation was used to examine relationships among all variables. To examine mediation of variables of interest a regression analysis was performed.

Table 1

Descriptive Statistics of the Dependent Variables

Variable	Mean	Std. Deviation
Perf. Rating	4.32	0.88
LMX	3.59	0.95
OCBO	4.09	0.80
OCBI	3.78	0.75
OCB	3.94	0.69
TOI	2.44	1.16
CWX	3.44	0.80

Note: *Descriptive statistics for the variable*

LMX Relationships with Outcomes

Hypothesis 1 predicted that same-gender subordinates will have high quality LMX relationship with their supervisor when compared to opposite-gender subordinates. The ANOVA analysis (Table 3) revealed no significant difference between the same-gender dyads (M = 3.64, SD =.83) and opposite-gender dyads (M = 3.70, SD = .83) on their LMX relationship quality (F (1, 108) =0.10, $p > .05$).

The second hypothesis tested the effect of the two LMX gender dyads on performance ratings. The results of this ANOVA showed no significant difference between the same-gender dyads (M = 4.25, SD = .94) and opposite-gender dyads (M = 4.51, SD = .68). (F (1, 108) = 2.01, p > .05).

Hypothesis 3 predicted that subordinates in the same-gender LMX dyads perform more OCBs compared to subordinates in the opposite-gender LMX dyads. The results of the ANOVA comparing scores on the overall OCB scale showed no significant difference between the same-gender dyads (M = 4.00, SD = .43) and opposite-gender dyads (M = 4.00, SD = .51), (F (1, 108) = 0.00, p > .05). The results of the ANOVA comparing scores on the OCBI and OCBO also showed no significant difference between the two groups. For OCBI, (F (1, 108) = 0.62, p > .05), and for OCBO, (F (1, 108) = 0.67, p > .05). (Means and standard deviations can be found in Table 2). Thus, hypothesis 3 was not supported.

Table 2

Descriptive Statistics Corresponding to the Gender Dyads and Outcomes

Variable		N	Mean	Std. Deviation
LMX	Same Gender Dyads	79	3.64	0.83
	Opp. Gender Dyads	31	3.70	0.83
Perf. Rating	Same Gender Dyads	79	4.25	0.94
	Opp. Gender Dyads	31	4.52	0.68
OCBO	Same Gender Dyads	79	4.19	0.58
	Opp. Gender Dyads	31	4.09	0.61
OCBI	Same Gender Dyads	79	3.82	0.53
	Opp. Gender Dyads	31	3.92	0.61
OCB	Same Gender Dyads	79	4.01	0.43
	Opp. Gender Dyads	31	4.00	0.51
TOI	Same Gender Dyads	79	2.48	1.10
	Opp. Gender Dyads	31	2.50	1.21
CWX	Same Gender Dyads	79	3.47	0.64
	Opp. Gender Dyads	31	3.60	0.71

Note: *Mean scores for the same Vs. opposite Gender Leader-Member dyads to the corresponding outcomes.*

Hypothesis 4 predicted that opposite-gender subordinates have higher turnover intentions, compared to same-gender subordinates. The results of the ANOVA showed no significant difference between the same-gender dyads (M = 2.48, SD = 1.10) and opposite-gender dyads (M = 2.50, SD = 1.21), (F (1, 108) = 0.01, p > .05). Thus, hypothesis 4 was not supported.

Table 3

ANOVA Outcomes of Same Vs. Opposite Gender Dyads

Variable		Sum Squares	Df	Mean Square	F	*p*
LMX	Between Groups	0.07	1	0.07	0.10	0.75
	Within Groups	73.86	108	0.68		
	Total	73.93	109			
Perf. Rating	Between Groups	1.54	1	1.54	2.01	0.16
	Within Groups	82.68	108	0.77		
	Total	84.22	109			
OCBO	Between Groups	0.23	1	0.23	0.67	0.42
	Within Groups	37.51	108	0.35		
	Total	37.74	109			
OCBI	Between Groups	0.19	1	0.19	0.62	0.43
	Within Groups	33.20	108	0.31		
	Total	33.39	109			
OCB	Between Groups	0.00	1	0.00	0.00	0.96
	Within Groups	21.86	108	0.20		
	Total	21.87	109			

Table 3 (Cont.)

ANOVA Outcomes of Same Vs. Opposite Gender Dyads

Variable		Sum Squares	df	Mean Square	F	*p*
TOI	Between Groups	0.01	1	0.01	0.01	0.94
	Within Groups	138.13	108	1.28		
	Total	138.14	109			
CWX	Between Groups	0.39	1	0.39	0.88	0.35
	Within Groups	47.30	108	0.44		
	Total	47.68	109			

Note: **p<.05: 1 = Same gender dyad, 2 = Opposite Gender dyad.*

After finding no significance in the ANOVAs comparing same-gender dyads to opposite-gender dyads, the dyads were further broken down in to four groups: a male-male dyad, male-female dyad, female-female dyad, and female-male dyad, in order to further analyze the different possible types of dyads. Results of the descriptive analysis of the four groups are shown in Table 4, and Table 5 shows the ANOVA results. Both coworker exchange ($F (3, 106) = 2.88$, $p < .05$) and OCBO ($F (3, 106) = 2.72$, $p < .05$) were found to be significant when the four groups were compared. Further examination of the cell means revealed that, for CWX, the Female-Male LMX dyad group had the highest CWX score (4.20) compared to the other dyad groups (F-F: Mean = 3.39, M-M: Mean = 3.55 , M-F: Mean = 3.45), indicating the employees in the Female-Male LMX dyads are more likely to have close relationships with their coworkers than the other dyads. For OCBO, the Female-Male LMX Dyad group had the lowest OCBO mean score (3.61) compared to the other

groups (F-F: Mean = 4.28 , M-F : Mean = 4.21, M-M: Mean = 4.09), indicating that employees in the Female-Male LMX dyads are less likely to engage in citizenship behavior beneficial to organization than the other dyads. The OCBO results partially support the third hypothesis, which states that opposite gender dyads will report lower OCBs, compared to same gender dyads.

Table 4

LMX Gender Dyads and Outcomes

Variable		N	Mean	Std. Deviation
LMX	M-M	37	3.81	0.68
	M-F	25	3.69	0.83
	F-F	42	3.50	0.93
	F-M	6	3.74	0.88
Perf. Rating	M-M	37	4.32	0.85
	M-F	25	4.52	0.71
	F-F	42	4.19	1.02
	F-M	6	4.50	0.55
OCBO	M-M	37	4.09	0.56
	M-F	25	4.21	0.53
	F-F	42	4.29	0.59
	F-M	6	3.61	0.72
OCBI	M-M	37	3.80	0.58
	M-F	25	3.89	0.64

Table 4 (cont.)

LMX Gender Dyads and Outcomes

Variable		N	Mean	Std. Deviation
	F-F	42	3.85	0.48
	F-M	6	4.05	0.54
OCB	M-M	37	3.94	0.42
	M-F	25	4.04	0.51
	F-F	42	4.07	0.43
	F-M	6	3.83	0.52
TOI	M-M	37	2.53	1.04
	M-F	25	2.51	1.21
	F-F	42	2.44	1.16
	F-M	6	2.50	1.34
CWX	M-M	37	3.55	0.71
	M-F	25	3.45	0.69
	F-F	42	3.39	0.58
	F-M	6	4.20	0.41

Note: *Mean scores for M-M, M-F, F-F, and F-M Leader-Member dyads to the corresponding outcomes.*

Table 5

ANOVA Outcomes of LMX in M-M, M-F, F-F, and F-M dyads

Variable		Sum Squares	df	Mean Square	F	*p*
LMX	Between Groups	1.90	3	0.63	0.93	0.43
	Within Groups	72.02	106	0.68		
	Total	73.93	109			
Perf. Rating	Between Groups	1.89	3	0.63	0.81	0.49
	Within Groups	82.32	106	0.78		
	Total	84.22	109			
OCBO	Between Groups	2.70	3	0.90	2.72	0.05*
	Within Groups	35.05	106	0.33		
	Total	37.74	109			
OCBI	Between Groups	0.36	3	0.12	0.39	0.76
	Within Groups	33.03	106	0.31		

Table 5 (cont.)

ANOVA Outcomes of LMX in M-M, M-F, F-F, and F-M dyads

Variable		Sum Squares	df	Mean Square	F	*p*
	Total	33.39	109			
OCB	Between Groups	0.51	3	0.17	0.85	0.47
	Within Groups	21.35	106	0.20		
	Total	21.87	109			
TOI	Between Groups	0.16	3	0.05	0.04	0.99
	Within Groups	137.98	106	1.30		
	Total	138.14	109			
CWX	Between Groups	3.59	3	1.20	2.88	0.04*
	Within Groups	44.09	106	0.42		
	Total	47.68	109			

Note: **p<.05: 1 = M-M, 2 = M-F, 3 = F-F, 4 = F-M*

CWX Relationships with Outcomes

The fifth hypothesis states that same-gender coworkers will experience higher quality exchange relationships compared to opposite-gender coworkers. In order to test this assumption, the coworker dyads were coded as same or opposite genders. To test the mean difference on coworker exchanges score among the two dyad groups (same-gender vs. opposite-gender), an ANOVA analysis was used. Since each participant reported their exchange relationship with four coworkers, dyads for each coworker were created and tested against the corresponding coworker exchange relationship score. No significant mean differences were found in the ANOVA results (Table 7). However, results for the 3rd group of coworkers were found to approach significance, with the opposite-gender coworker dyads reporting lower CWX scores (M =3.56, SD =.79), compared to same-gender coworker dyads (M =3.23, SD =.943), ($F(1, 108) = 3.77$, $p > .05$). Table 6 presents the descriptive statistics for these groups. Thus, while one group exhibited a trend consistent with hypothesis 5, it was not supported.

Table 6

CWX and Coworker Groups

Coworker Groups	Gender dyads in each Groups	N	Mean	Std. Deviation
1st Group of Coworkers	Same Gender Coworkers	91	3.57	0.89
	Opposite Gender Coworkers	22	3.84	0.72
2nd Group of Coworkers	Same Gender Coworkers	72	3.58	0.82
	Opposite Gender Coworkers	38	3.64	0.82
3rd Group of Coworkers	Same Gender Coworkers	65	3.56	0.79
	Opposite Gender Coworkers	45	3.23	0.94
4th Group of Coworkers	Same Gender Coworkers	75	3.42	0.91
	Opposite Gender Coworkers	30	3.44	0.93

Note: *Participant's dyads with four coworkers and the corresponding CWX scores for same/opposite gender dyads*

Table 7

ANOVA Comparing CWX in Same Vs. Opposite Gender Coworker Dyads

Variable		Sum Squares	df	Mean Square	F	*p*
1st Group of Coworkers	Between Groups	1.28	1	1.28	1.72	0.19
	Within Groups	82.18	111	0.74		
	Total	83.45	112			
2nd Group of Coworkers	Between Groups	0.08	1	0.08	0.12	0.73
	Within Groups	72.91	108	0.68		
	Total	73.00	109			
3rd Group of Coworkers	Between Groups	2.77	1	2.77	**3.77**	**0.06**
	Within Groups	79.32	108	0.73		
	Total	82.09	109			
4th Group of Coworkers	Between Groups	0.01	1	0.01	0.01	0.91
	Within Groups	86.49	103	0.84		
	Total	86.50	104			

Note: **p<.05: 1 = Same gender dyad, 2 = Opposite Gender dyad.* ***Bolded*** *scores shows near significance*

The correlational analysis examining the relationships of the variables is presented in Table 8. The findings support several previous research findings in the LMX domain. Performance ratings are positively correlated to LMX (r = .56) but no significant correlation between performance rating and other variables were reported. LMX has a significant positive relationship with all the variables (OCBO: r = .37, OCBI: r = .45, OCB: r = .46, CWX: r =.37) except TOI. As expected, TOI is negatively related LMX (r = -.24).

The correlational analysis also addresses the research question, which seek to analyze the effect of CWX on performance ratings, OCB, and TOI. The CWX demonstrated significant positive relationships with OCB (r = .56) OCBI (r = .59), OCBO (r = .41). The correlation analysis shows, however, that CWX is not related to turnover intentions or performance ratings.

Table 8

Correlation between Variables

Variable	Perf. Rating	LMX	OCBO	OCBI	OCB	TOI
Perf. Ratings						
LMX	.56**					
OCBO	.11	.38**				
OCBI	-.03	.46**	.59**			
OCB	.05	.46**	.89**	.88**		
TOI	-.15	-.24*	.07	-.03	.02	
CWX	.02	.36**	.41**	.58**	.55**	.12

Note: *A = **. Correlation is significant at the 0.01 level (2-tailed).*

*B = *. Correlation is significant at the 0.05 level (2-tailed).*

CWX as A Mediator of the Relationship between LMX and OCB

After determining that the quality of the LMX relationship significantly predicted CWX and OCB, and that CWX significantly predicted OCB, a Sobel test (Preacher & Hayes, 2004) was performed in order to determine if CWX might be a mediator of the relationship between LMX and OCB. While the Sobel test was significant ($z = 3.35$, $p < .001$), an examination of the relationships including the predictor (LMX) and the potential mediator (CWX) demonstrated that when CWX was accounted for, LMX remained a significant predictor of OCB (Figure 2). Thus, it appears that CWX is likely to be a partial mediator of the relationship between LMX and OCB (Table 9).

Table 9

Hierarchical Regression Predicting OCB from LMX, Controlling for CWX

	Variable	β	R^2	Δ R^2
Block 1			.31*	
	CWX	.56*		
Block 2			.38*	.07*
	CWX	.45*		
	LMX	.30*		

Note: * *p* < *.001*

Discussion

The main purpose of this study was to test a gender based LMX model and some of the organizationally important outcomes associated with LMX relationship. Additionally, the present study sought to shed some light on the often neglected topic of coworker exchange relationships, and their determinants and outcomes. The study attempted to examine a model that is still under scrutiny. The proposed arguments were based on the similarity–affect literature (Byrne, 1971) and the subsequent gender similarity (Turban & Johns, 1998; Wayne, Shore, & Liden, 1997) that may lead to affect/liking between supervisors and subordinates (Deluga, 1988; Engle & Lord, 1997; Phillips & Bedeian, 1994). The findings of the present research suggest that gender dyads are not a determinant of LMX relationship quality. The results suggest that supervisor-subordinate gender similarity is not a significant predictor of LMX relationship quality and the related outcomes. Although this finding is in contrast with other studies on gender similarity (e.g., Tsui & O'Reilly, 1989), this finding is consistent with Bauer and Green's (1996) arguments that gender has no effect on LMX quality. The present findings are also consistent with research demonstrating that neither men nor women used gender as a criterion to predict who could he/she trusted to cooperate (Orhell, Dawes, and Schwartz-Shea, 1994), and that dyadic similarity on gender was not related to trust development (McAllister, 1995).

The results indicate that there may be factors other than gender similarity that determine the leader-member exchange relationship and these factors may or may not be demographic. As Nahrgang, Morgeson, and Ilies (2009) suggest, personality traits such as

extraversion and agreeableness for both leader and member may lead to the development of a more favorable exchange relationship. They also argue that after the initial period of interaction, performance will be a more important determinant of LMX. Research also suggests that a supervisor's upward dyadic relationship influences his/her relationship with subordinates. Specifically, a supervisor with high quality relationship with his supervisor may also have a high quality relationship with his subordinates (Cashman, Dansereau, Graen, & Haga, 1976). Thus, there are a number of factors other than gender that may have predicted the LMX relationship quality of the sample in this study.

Although this study did not observe an effect of same gender dyads on performance ratings, the correlation analysis confirmed a significant positive relationship between leader-member exchange quality and performance ratings. This supports the notion that LMX is a strong predictor of supervisor ratings of subordinate's performance. It can also be argued that the strong relationship between the two variables indicates that performance of the employee may be an antecedent of the LMX development, and not an outcome. Thus, it may be that leaders notice high-performers, and then give those subordinates more trust and resources, rather than the subordinates' becoming higher performers as a result of having a high-quality LMX relationship with the leader. More controlled laboratory experiments can demonstrate the directional relationship between employee performance and LMX.

Similarly, LMX and OCB were found to have a significant positive relationship, but the strict same-gender vs. opposite gender-based model of LMX and OCB were not supported in this study. The present study did provide results suggesting that when the supervisor is female, and the subordinate is male, the subordinate demonstrates lower

organizational OCB behaviors, compared to other dyads. This may be because female supervisors are more relationship-oriented than male supervisors, and might be more hesitant to confront the male subordinate when they engage in unsupportive behaviors, such as taking longer breaks, spending time on personal phone calls, etc. Thus, the male subordinates may continue to engage in such detrimental behaviors.

Furthermore, female subordinates might have better coping ability compared to male subordinates. The coping literature suggest that men uses flight or fight responses whereas women seek social support and are more caring (Crocker & Graham, 1995). Thus, female subordinates may perform OCB as a mean to seek social support. It can be argued that regardless of their supervisor gender, female subordinates may still perform more organizational OCB compared to male subordinates. It may also be possible that other antecedents of OCB (affect, job satisfaction, and employees' perception about organizational justice etc.) that this study did not measure can all influence subordinate's OCB. In fact perception of organizational justice (the fairness of the procedure (procedural justice), the manner in which supervisors treat employees (interactional justice) and outcomes they receive (distributive justice)) is an important predictor of OCB (Moorman, 1991). Perhaps, the subordinate's gender may mediate the relationship between organizational justice and OCB, such that male subordinates may respond to an unfair treatment more strongly than a female subordinate by not engaging in OCB. Further examination of the moderating effect of gender on the relationship between organizational justice and OCB is required. As mentioned earlier, this study had participants from various organizations, and thus the contextual variables such as organizational justice, the work environment etc. vary among the

participants, thus it would be hard to make a robust conclusion. It is strongly recommended that future research on LMX should use samples from the same or similar organizational and work contexts.

Female-male LMX dyads also reported having a higher quality coworker exchange relationship than the other dyads. This indicates that male subordinates working under a female supervisor are more likely to have positive working relationships with their coworkers. As Gillian (1982) suggests, women are more relationship oriented in their personal and professional life. Female leaders may be more likely to encourage altruistic behaviors in male followers as a result of their relationship-oriented nature. Perhaps the male subordinates working under a female supervisor may have been influenced by their supervisors to engage in more helping behaviors. Although not significant, the higher OCBI score of female-male LMX dyads also support this argument. On the other hand, a male subordinate may engage in impression management, to find favor in his female supervisor, who highly regards such behaviors. Alternatively, a male subordinate working under a female supervisor may have difficulty relating to his leader on a personal level. Thus, he may seek those closer, personal relationships with his coworkers, leading to the development of high-quality exchange relationships.

Turnover intentions were also found be unrelated to the membership in the gender dyads; nevertheless, LMX has a negative relationship with TOI. This may demonstrate that the relationship with one's supervisor is one of the best predictor of an employee's desire to remain with an organization. Indeed, satisfaction with one's supervisor is one of the best

predictors of job satisfaction and other important attitudes associated with happiness with one's job at an organization (e.g, Ellickson, 2002).

Counterintuitively, however, TOI was found to be unrelated to OCB, CWX and performance ratings. It would make sense that people who are happy with their jobs and their relationships with their coworkers would be more likely to perform OCB, report higher CWX and performance ratings, and would be less likely to intend to leave their jobs. Thus, it would be expected that these variables would all be interrelated. It appears, however, that TOI is not, in fact, related to these important organizational variables. This might be the case because, perhaps when subordinates have a high quality relationship with their supervisor (the best predictor of TOI), some of the benefits associated with OCB and CWX are substituted within the LMX relationship. For example, if a subordinate perceives that he can still receive a good performance rating and subsequent rewards without performing OCB or CWX, he may still be content enough to remain on the job. Additionally, the social benefits of having a high-quality LMX relationship may simply be more important to a person's desire to remain at their job than the social benefits associated with OCB and CWX. As LMX appears to be the primary predictor for TOI, this underscores the important role LMX plays in employee retention.

Results show that the relationship between LMX and OCB is partially mediated by CWX. This means that one way that LMX might influence OCB is vis a vis LMX's influence on CWX. This demonstrates the importance of coworker relationships and the examination of these relationships and their determinants and outcomes. Furthermore, previous research suggests that coworker exchange reflects some of the dimensions of OCB such as altruism,

characterized by helping behavior such as assisting a colleague with a work related problem (Ali & Kandan, 2010). This indicates that organizations intending to improve employee's OCBs should also pay attention to create an environment where high quality LMX relationships and CWX relationships are present. Researchers have argued that high-quality coworker exchange can influence work attitudes and performance, and that coworker exchange could, in turn, be influenced by LMX relationship quality (Seers, 1989; Wikaningrum, 2007). Indeed, Sherony & Green (2002) suggested that subordinates who share similar exchange relationships with the supervisor tend to have strong relationships among themselves. In other words, there is high quality co-worker exchange within in-groups and also within out-groups. As previously hypothesized, the leader is likely to categorize opposite-gender subordinates into the out-group and same-gender subordinates into the in-group. Thus, the co-workers of both same-gender LMX dyads and opposite-gender LMX dyads may exhibit high quality exchange relationship within their respective groups (Figure 3). Future research is needed, however to determine the effect of gender LMX dyads on coworker relationships.

One of the major limitations of this study is the small size of the organizational sample. We were unable to obtain a large sample from any one organization; most participants of this study work in different organizations, in different professional fields, and under different supervisors. This may have largely contributed to the absence of a significant difference between the genders LMX dyads. Perhaps the ability to examine these relationships within one or two large organizations, in similar fields, would have allowed us to better compare the groups. Additionally, examining these relationships within existing

work groups, under the same supervisor, would likely provide valuable insight into the dynamics of these exchange relationships.

A second limitation related to the research sample is the student participants. Most student participants have less tenure with their supervisor compared to non-student sample (Student: M = 2.5, SD = 1.33, Non Student; M = 4.13, SD = 1.69. This would limit the interaction between the supervisor and the subordinates. Additionally, with the student sample, there is less likely to be similarity with their supervisors, in terms of age, educational experience, and work experience. Thus, the dynamics of their LMX relationships are likely to be different than those of older, more experienced workers.

It is recommended that future studies would address the issues that we have faced in this study. Selecting an appropriate sample is of primary concern. Instead of a student sample, future research should attempt to obtain a larger, more complete organizational sample. It is advisable that studies in this domain choose participants from one or two organization from a similar industry rather than collecting samples from random organizations. Even more desirable, would be to study these relationship dynamics in a laboratory study. Future studies may also want to look at the directionality of the variables. For example, this study assumed that LMX leads to OCB, performance, CWX etc., but the relationship between LMX and these variables may occur in the opposite direction.

The present study intended to identify the relationship of LMX with other important organizational variables. Specifically the association of gender LMX dyads on OCB, performance ratings, TOI and the effect of coworker gender dyads on CWX were examined. The findings suggest that gender may not be related to LMX relationship quality

development. The study also demonstrates the overarching importance of LMX quality on important organizational outcomes. Organizations should be aware of the important role LMX plays in producing outcomes that foster team performance, and its vital role in retaining employees. CWX was also found to contribute to important organizational outcomes. Leaders and HR managers should take measures to ensure high quality CWX. It is imperative that organizations engage in interventions to facilitate a high quality relationship among supervisors and subordinates.

References

Akinbode, G. A. (2011). Demographic and dispositional characteristics as predictors of organizational citizenship behavior. *Ife PsychologIA, 19*(1), 375–403

Ali, I. B., & Kandan, P. (2010). A correlation study of leader–member exchange and organizational citizenship behavior in a public sector organization. *Journal of Global Business and Economics*, 1, 62–78.

Baker, B. (2005). *The good, the bad and the ugly: The mediating role of attribution style in the relationship between personality and performance.* (Master Thesis). Retrieved from **http://www.lib.ncsu.edu/resolver/1840.16/2945.**

Basu, R., & Green, S. G. (1995). Subordinate performance, leader–subordinate compatibility, and exchange quality in leader-member dyads: A field study. *Journal of Applied Social Psychology, 25*, 77–91.

Bauer, T. N., & Green, S. G. (1996). Development of leader-member exchange: A longitudinal test. *Academy of Management Journal, 39*, 1538–1567.

Basu, R., & Green, S. G. (1997). Leader–member exchange and transformational leadership: An empirical examination of innovative behaviors in leader-member dyad. *Journal of Applied Social Psychology, 27,* 477–499.

Deluga, R. J. (1994). Supervisor trust building, leader-member exchange and organizational citizenship behavior. *Journal of Occupational and Organizational Psychology*, *67*, 315–326Dienesch, R. M., & Liden, R. C. (1986). Leader-member exchange model of leadership: A critique and further development, *Academy of Management Review, 11*, 618–634.

Dansereau, F., Graen, G., & Haga, W.J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance, 13,* 46–78.

Engle, E.E., & Lord, R.G. (1997). Implicit theories, self-schemas, and leader–member exchange. *Academy of Management Journal*, *40*, 988–1010.

George, J. M., & Brief, A. P. (1992). Feeling good-doing good: A conceptual analysis of the mood at work-organizational spontaneity relationship. *Psychological Bulletin, 112*, 310–329.

Graen, G., & Scandura, T.A. (1987). Toward a psychology of dyadic organizing. *Research in Organizational Behavior, 9,* 175–208.

Graen, G. B., & Uhl-Bien, M. (1995). Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly, 6,* 219–247.

Green, S. G., Anderson, S. E., & Shivers, S. L. (1996). Demographic and organizational influences on leader-member exchange and related work attitudes. *Organizational Behavior and Human Decision Processes, 66*, 203–210.

Jex, M. Steve., & Britt, W.Thomas. (2008). Organizational psychology: A scientist–practitioner approach (2nd ed.). New Jersey, NJ: John Wiley and Sons, Inc.

Kim, S., O'Neill, J. W., & Cho, H.(2010). When does an employee not help coworkers? The effect of leader–member exchange on employee envy and organizational citizenship behavior. *International Journal of Hospitality Management, 30,* 680–688.

Landy, F. J. (2010). Bias in performance ratings: Then and now. In J. L. Outtz (Ed.), *Adverse impact* (pp. 227–248). San Francisco: Jossey-Bass.

Liden, R.C., & Graen, G. (1980). Generalizability of the vertical dyad linkage model of leadership. *Academy of Management Journal, 23*, 451–465.

Love.S.M., & Forret. M. (2008). An examination of the relationship between team-member exchange and supervisor reports of organizational citizenship behavior. *Journal of Leadership and Organizational Studies*, 4, 342–352.

McNeely, L. B., & Meglino, M. B. (1994). The role of dispositional and situational antecedents in prosocial organizational behavior: An examination of the intended beneficiaries of prosocial behavior. *Journal of Applied Psychology,* 79(6), 836–844

Michael, D. (2011). Supportive supervisor communication as an intervening influence in the relationship between LMX and employee job satisfaction, turnover intentions, and performance. *Journal of Behavioral Studies in Business, 4, 4–28.*

Moorman. H. R., & Blakely, L. G. (1995). Individualism-collectivism as an individual difference predictor of organizational citizenship behavior. *Journal of Organizational Behavior,* 16, 127–42.

Organ, D.W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology, 48*, 775–802.

Phillips, A.S., & Bedeian, A.G. (1994). Leader-follower exchange quality: The role of personal and interpersonal attributes. *Academy of Management Journal*, *37*, 990–1001.

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers*, 36, 717-731.

Rinald, J. D. (1998). Leader–member exchange quality and effectiveness rating. *Group & Organization Management*, *23*, 189–215.

Seers, A. (1989). Team-member exchange quality: A new construct for role-making research. *Organizational Behavior and Human Decision Processes*, *43*, 118–135.

Settoon, R. P., Bennett, N., & Liden, R. C. (1996). Social exchange in organizations: Perceived organizational support, leader-member exchange, and employee reciprocity. *Journal of Applied Psychology, 81,* 219–227.

Shapiro, C., Jacqueline, A. M., Kessler I., & Purcell, J. (2004). Exploring organizationally directed citizenship behavior: reciprocity or 'it's my job'?. *Journal of Management Studies,* 41(1), 102–115.

Sherony, K, M., & Green, S. G. (2002). Coworker exchange: Relationships between coworkers, leader-member exchange and work attitudes. *Journal of Applied Psychology,* 77, 542–548.

Tsui, A.S., & Barry, B. (1986). Interpersonal affect and rating errors. *Academy of Management Journal, 29,* 586–599.

Turhan, D. B., & Jones, A. P. (1988). Supervisor-subordinate similarity: Types, effects, and mechanisms. *Journal of Applied Psychology,* 73, 228–234.

Varma, A., DeNisi, A.S., & Peters, L.H. (1996). Interpersonal affect and performance appraisal: A field study. *Personnel Psychology, 49*, 341–360.

Varma., A.., & Stroh, K, L. (2001). The impact of same sex LMX-dyads on performance evaluation. *Human Resource Management, 40*, 309–320.

Vecchio, R. P., & Gobdel, B. C. (1984). The vertical dyad linkage model of leadership: Problems and prospects. *Organizational Behavior and Human Performance*, 34, 5–20.

Wayne, S. J., & Green, S. A. (1993). The effects of leader-member exchange on employee citizenship and impression management behavior. *Human Relations,* 46*,* 1431–1440.

Wayne, S. *J.,* & Ferris, G. R. (1990). Influence tactics, affect, and exchange quality in supervisor subordinate interactions: A laboratory experiment and field study. *Journal of Applied Psychology,* 75, 487–499.

Wayne, S.J., Shore, L.M., & Liden, R.C. (1997). Perceived organizational support and leader–member exchange: A social exchange perspective. *Academy of Management Journal*, *40*, 82–111.

Wikaningrum, T. (2007). Coworker exchange, leader member exchange, and work attitudes: A study of coworker dyads. *Gadjah Mada International Journal of Business, 9,* 187–215.

Yen, H., & Neihoff, B. (2004). Organizational citizenship behavior and organizational effectiveness: Finding relationship in Taiwanese banks*. Journal of Applied Social Psychology,* 34(8), 617–637.

Appendix A: LMX7

Response options:

1 = Strongly Disagree

2 = Slightly Disagree

3 = Neither Agree nor Disagree

4 = Slightly Agree

5 = Strongly Agree

Questions:

1. I usually know where I stand with my supervisor
2. My supervisor understands my problems and needs well enough
3. My supervisor recognizes my potential some but not enough
4. Regardless of how much power my manager has built into his or her position, my manager would be personally inclined to use his/her power to help me solve problems at work
5. I can count on my supervisor to 'bail me out' at his/her expense when I really need it
6. I have enough confidence in my supervisor to defend and justify his/her decisions when he/she is not present to do so
7. My working relationship with my supervisor is effective

Appendix B: OCB

Response options:

1 = Never True

2 = Rarely True

3 = Sometimes True

4 = Often True

5 = Always True

Questions:

OCBO

1. I give advance notice when unable to come to work.
2. My attendance at work is above the norm.
3. I take undeserved work breaks.
4. I spent a great deal of time on personal phone calls/online chatting/ social networking websites.
5. I complaint about insignificant things at work.
6. I adhere to informal rules devised to maintain order.

OCBI

7. I help the colleague who has been absent.
8. I help others who has heavy workloads.
9. I assist supervisor with his work when not asked.
10. I take time to listen co-worker's problems and worries. (I don't spend time listening coworker's problems and worries)
11. I take a personal interest in other employees.
12. I go out of the way to help new employees.
13. I pass along information to my co-workers.

Appendix C: CWX

Response options:

1 = Strongly Disagree

2 = Slightly Disagree

3 = Neither Agree nor Disagree

4 = Slightly Agree

5 = Strongly Agree

Questions:

1. My coworker helps me to learn better work methods.
2. I often suggest better work methods to my coworker.
3. I am flexible about switching jobs with my coworker.
4. I often ask my coworker for help.
5. I often volunteer to help my coworker.
6. I am willing to finish work assigned to my coworker.
7. My coworker is willing to finish work assigned to me.

Appendix D: Turnover Intentions

Response options:

1 = Strongly Disagree

2 = Slightly Disagree

3 = Neither Agree nor Disagree

4 = Slightly Agree

5 = Strongly Agree

Questions:

8. I often think of leaving the organization.
9. It is very possible that I will look for a new job next year.
10. If I could choose again, I would choose to work for the current organization.

Appendix E

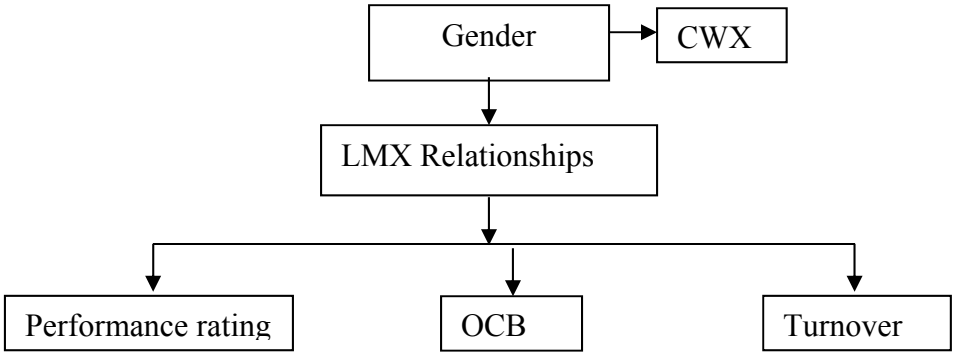

Figure 1. Research Frame work

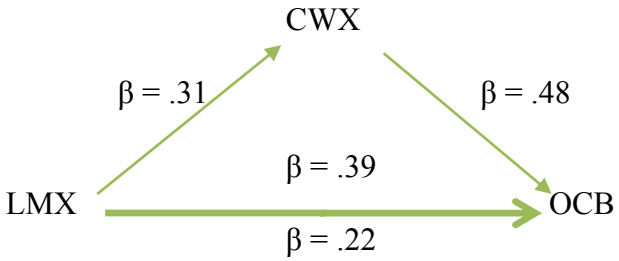

Figure 2. CWX Mediating the Relationship between LMX and OCB

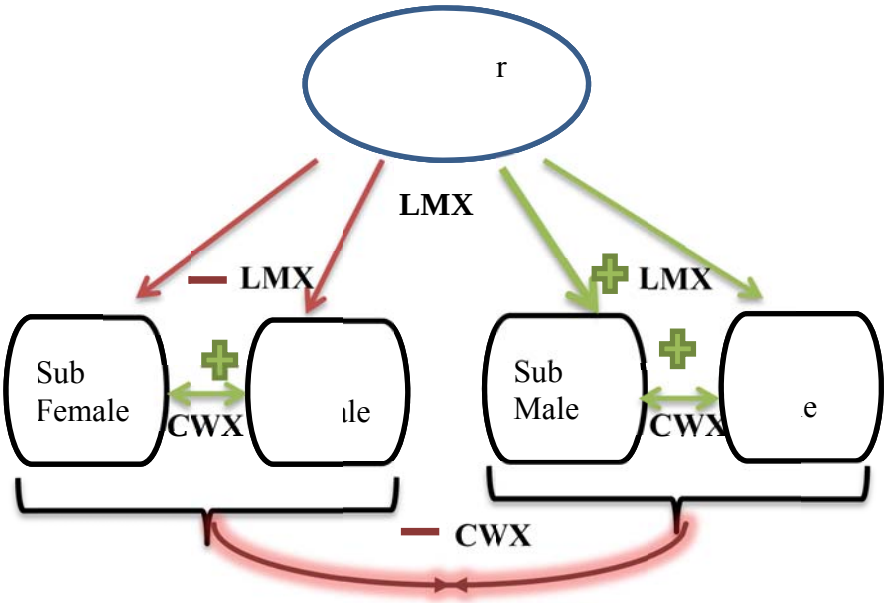

Figure 3. Effect of gender based LMX dyads on CWX